

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
District Department of the Environment



Office of the Director

January 29, 2008

Mr. Terry Darton  
Air Permit Manager  
Virginia Department of the Environment  
13901 Crown Court  
Woodbridge, VA 22193

RECEIVED

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Northern Va. Region  
Dept. of Env. Quality

**Re: Comments on Draft Merged Stack (2 Stack) Comprehensive State Operating Permit for Mirant Potomac River LLC's Potomac River Generating Station**

Dear Mr. Darton:

The District Department of the Environment (DDOE) appreciates the opportunity to comment on the draft Merged Stack (2 Stack) Comprehensive State Operating Permit (SOP) for Mirant's Potomac River Generating Station (PRGS). DDOE recognizes that PRGS is an important source of energy for District residents. At the same time, DDOE is concerned with potential impacts on District residents from PRGS' emissions. Accordingly, DDOE provides its comments in hopes that they will assist the Virginia Department of Environmental Quality (VADEQ) in developing a permit for PRGS that will be protective of human health and the environment in its vicinity, as well as downwind of the facility.

**1. Increased Dispersion into the District of Columbia**

We understand that one of the issues facing PRGS is a plume downwash phenomenon in which the stack exhaust is directed downward very close to the facility, exposing local residents to pollutants in the exhaust. While the stack merger approach proposed in the draft SOP might address the downwash issues, it may actually transport the PRGS pollution further downwind of the facility. DDOE is concerned that the District of Columbia is downwind of the facility, particularly the eastern portions of the District, and will potentially be impacted. In addition, there are potential environmental justice issues related to the increased transport of pollutants from PRGS because the eastern portions of the District already face many socioeconomic challenges.

**2. Emissions of Particulate Matter**

Of particular concern to DDOE is particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>). The metropolitan Washington area is just barely in attainment with the annual National Ambient Air Quality Standard (NAAQS) for PM<sub>2.5</sub>, and DDOE has recommended to the U.S. Environmental Protection Agency (EPA) that the area be classified as nonattainment for the new daily NAAQS for PM<sub>2.5</sub>. In addition, PM<sub>2.5</sub> will disperse farther than the larger particles and so be more likely to be transported into the District.

VADEQ modeled and evaluated compliance with the NAAQS for particulate matter less than 10 microns in diameter (PM<sub>10</sub>). DDOE understands that in doing so, VADEQ followed EPA's interim recommendation to use PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub>. VADEQ's modeling results for the merged stack option showed ground level PM<sub>10</sub> concentrations of 122 to 123 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Using data from various monitors in the metropolitan Washington region, DDOE estimates that 60 to 90 percent of PM<sub>10</sub> is PM<sub>2.5</sub>. We would like to know how this translates into ground level concentrations of PM<sub>2.5</sub>, because we are concerned that there will be exceedances of the daily NAAQS of  $35\mu\text{g}/\text{m}^3$ . If the modeled ground level concentrations of PM<sub>2.5</sub> do exceed the NAAQS, PRGS should be required to install emission controls.



DDOE understands that the draft merged stack SOP includes a permit condition requiring PRGS to conduct PM2.5 modeling once guidelines have been established by EPA or VADEQ. However, we are concerned that, by the time there is guidance, the stack merger will have been completed and unlikely to be reversed and that the increased dispersion of air pollutants will already be taking place.

### **3. Emissions of Nitrogen Oxides**

The draft SOP for PRGS proposes removing the hours-of-operation constraints while leaving the short-term emission rates unchanged for oxides of nitrogen (as NO2). As stated in the draft SOP, the removal of hours-of-operation constraint could potentially lead to an increase in NO2 emissions from PRGS. The metropolitan Washington DC-MD-VA region is a nonattainment area for the ground-level ozone NAAQS, and oxides of nitrogen are primary precursors with a critical role in ground-level ozone pollution. DDOE is very concerned about the impact of the significant NO2 increases from PRGS on the DC metropolitan region's ability to achieve and maintain the ozone NAAQS. VADEQ should ensure that the region's air quality plans and attainment demonstrations for the ozone NAAQS are not compromised by any additional NO2 emissions from PRGS.

### **4. New Source Review**

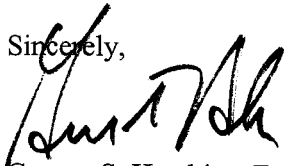
At the public hearing on November 19, 2007, VADEQ stated that they were in discussions with EPA about the applicability of new source review (NSR) requirements at PRGS. Because NSR is not included in the draft SOP, we are assuming that it was determined with EPA that NSR does not apply. DDOE is interested in understanding why PRGS is not subject to NSR requirements.

### **5. Mercury**

PRGS burns coal, which emits a number of toxic air pollutants, including mercury. VADEQ's modeling efforts included mercury but the draft SOP does not contain any emission limit for mercury. DDOE is interested to know whether a mercury limit will be included in the final SOP or at a future date when VADEQ adopts the Clean Air Mercury Rule.

Again, we appreciate the opportunity to have provided these comments to VADEQ. If you would like to discuss these further, please do not hesitate to contact me at (202) 535-2600 or Cecily Beall of my staff at (202) 535-2626.

Sincerely,



George S. Hawkins, Esq., Director  
District Department of the Environment

cc: David Payler, Director, VADEQ  
James Sydnor, Director, Air Quality Division, VADEQ  
Shari Wilson, Commissioner, MDE  
Hon. David Snyder, Chair, MWAQC  
Cecily Beall, Associate Director, Air Quality Division, DDOE